# KOA



WillowWood®

#### Introduction

 For practitioners searching for an alternative to the status quo, the Koa LP is the first in WillowWood's new line of durable fiberglass prosthetic feet designed specifically to complement the comfort of Alpha Liners

## **Product Highlights**

Ultra-low profile paired with a functional sandal toe



### Product Highlights

- Glass composite = energy return + ground compliance
- Ideal for...
  - moderately to highly active individuals
  - need durability and dynamic response



#### Koa LP Foot

- Smooth roll-over and high energy return
- Split keel provides reliable stability over various terrain
- The functional sandal toe gives:
  - footwear versatility
  - lifelike appearance



# Specifications

Heel Height	10 mm (3/8")
Build Height	67 mm (2.6")
Sizes*	23 cm through 28 cm
Patient Weight Limit	365 lbs (166 kg)
Heel Stiffness	Adjustable with provided heel wedges
Toe Stiffness	2 through 9**
Weight (size 26, category 5)	560 g
Colors***	Buff, Medium Brown, Tan



<sup>\*\*</sup>Sizes 23 and 24 are available in categories 2,3, and 4 only

<sup>\*\*</sup>while named the same, different than existing WW colors

#### What's in the box?



Note: Soft heel stiffness = no heel wedge

#### Toe Stiffness

Usor Woight	Impact Levels		
User Weight	Low	Medium	High
99-115 lbs (45-52 kg)	2	2	2
116-130 lbs (53-58 kg)	2	2	3
131-150 lbs (59-68 kg)	2	3	4
151-170 lbs (69-77 kg)	3	4	5
171-194 lbs (78-88 kg)	4	5	6
195-221 lbs (89-100 kg)	5	6	7
222-256 lbs (101-116 kg)	6	7	8
257-287 lbs (117-130 kg)	7	8	9
228-324 lbs (131-147 kg)	8	9	_
325-365 lbs (148-165 kg)	9	_	_

#### Impact Level Examples

#### LOW

Walking on uneven surfaces

- Shopping
- Yard work
- Community ambulation

#### **MEDIUM**

Light sports

- Golf
- Bowling
- Trail walking
- Walking for exercise

#### HIGH

Higher impact activities

- Running
- Basketball
- Treadmill

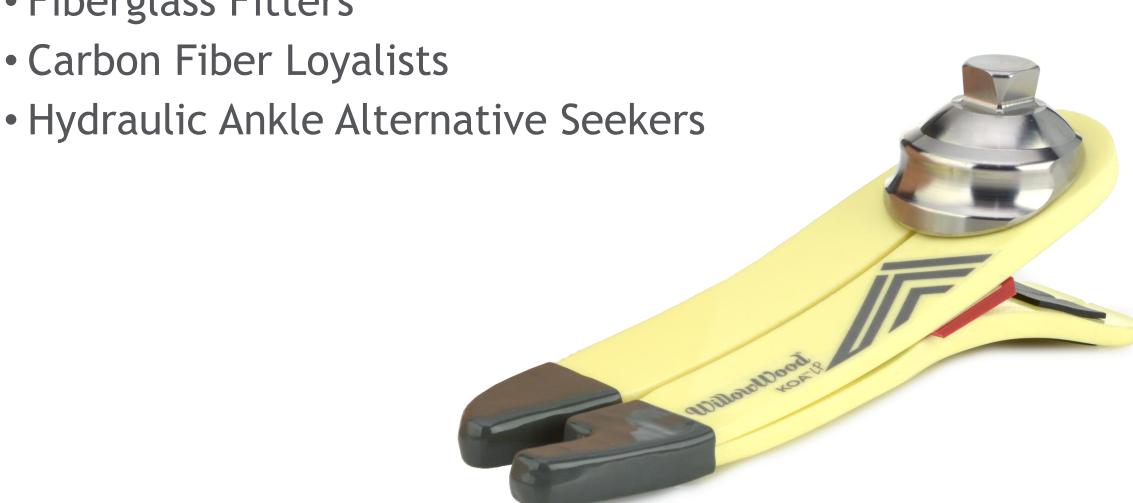
(Amputee leaves ground and lands on prosthetic foot)

# Pricing/ Warranty

- Trial period
  - 60 days from date of patient fitting
- Warranty
  - Foot module: 36 months
  - Foot shell: 6 months

### Segmentation and Targeting

Fiberglass Fitters



# Positioning: Fiberglass Fitters

- ..vs. Freedom
  - Low, Similar
- ...vs Rush
  - Lifelike, Split



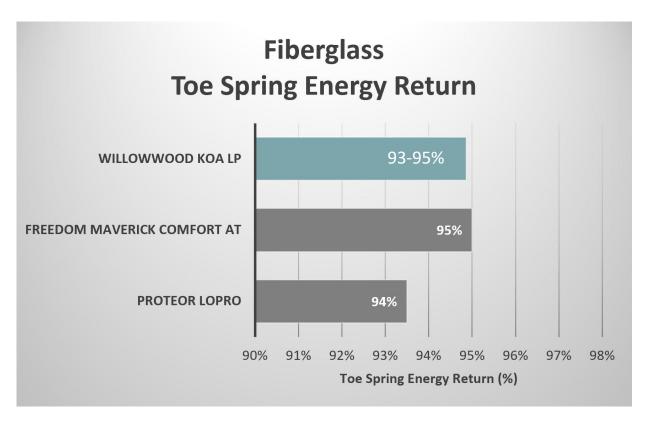


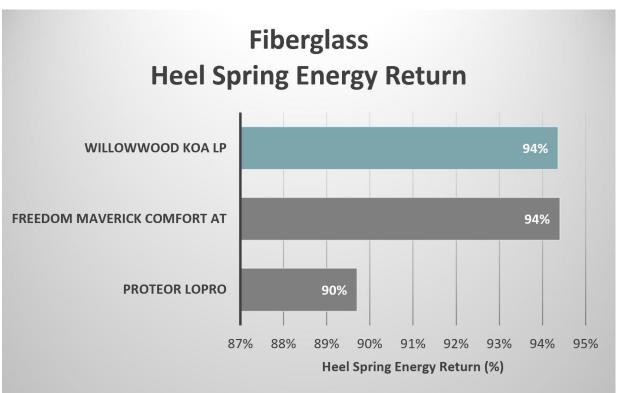






#### Positioning: Fiberglass Fitters





# Positioning: Fiberglass Fitters

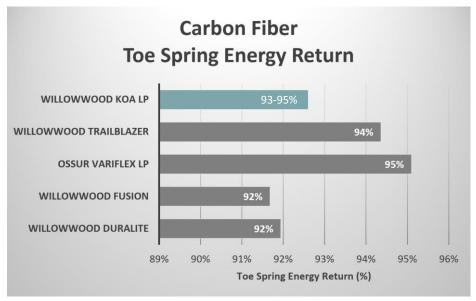
- Summary:
  - Equivalent or better energy return performance in a lifelike and low profile package

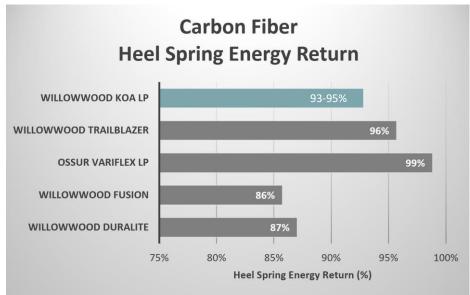
### Positioning: Carbon Fiber Loyalists

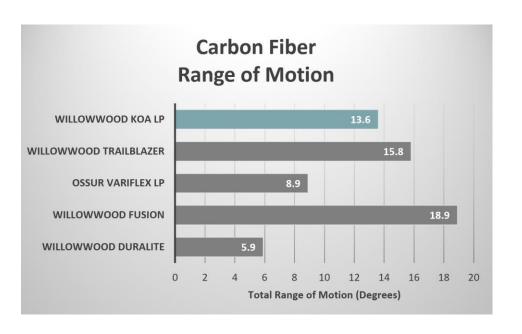
- ...vs Carbon Fiber Feet (Variflex LP, Triton, etc)
  - Durable, Compliant



#### Positioning: Carbon Fiber Loyalists







## Positioning: Carbon Fiber Loyalists

- Summary:
  - Similar energy return
  - Greater inversion/eversion range of motion than low profile carbon fiber feet
  - Durability

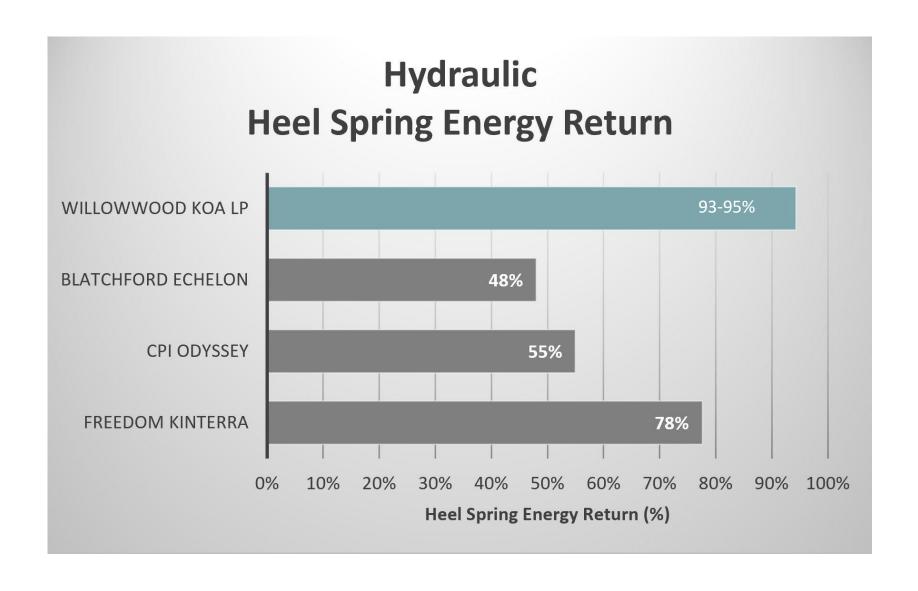
### Positioning: Hydraulic Ankle Alternative

- ...vs Echelon, Odyssey, Kinterra, Motionfoot MX
  - Lightweight, Simple, Low Build Height





#### Positioning: Hydraulic Ankle Alternative



### Positioning: Hydraulic Ankle Alternative

- Summary:
  - Koa LP utilizes the flexibility of fiberglass to provide range of motion and high energy return from heel strike

# WillowWood® ALPHA TrūSeal™

# OUT WITH THE OLD, IN WITH THE TRU





#### An all new sealing liner featuring

Trū Suction

Trū Durability

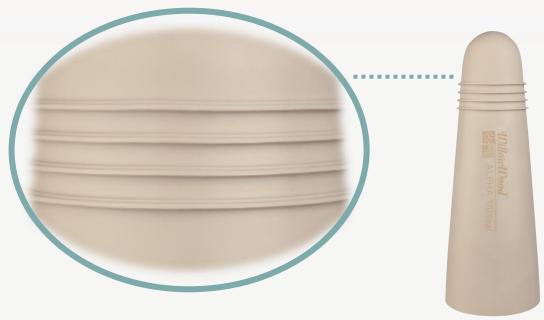
Trū Volume Control

# Trū Suction

Four integrated stepped fins create consistent socket contact in 2 ways:

- 1 Stepped design reinforces fin and promotes upward deflection consistently
- 2 Stepped design creates two points of contact, per fin, against the socket wall

Excellent fin contact and visual identification of a proper seal during diagnostic fitting = less pistoning and improved rotational control.



# Trū Durability

Satin finish and Alpha Silicone prolong liner life by:

- Allowing easier, lubricant-free donning
- 2 Fabricless, Satin finish is easy to clean and promotes hygiene
- 3 Satin finish reduces shear and fin wear from daily liner reflection while don/doffing



# Trū Volume Control

TruSeal liner accommodates a wide range of daily volume fluctuation. Adaptation to fluctuation ensures uninterrupted suction suspension.

This is accomplished by:

- 1 Platinum cured silicone with an embedded mesh fabric that adapts to volume changes
- 2 Stepped fin design that maintains consistent contact
- 3 Silicone VMPs provide user and clinician without compromising fin security



# Features



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#### Features & Benefits

Feature	Benefit
Four Integrated Stepped Fins	Minimize pistoning and control rotation within the prosthesis
	Fins conform to the socket and clearly indicate a proper seal
Satin Outer Finish	Allows for easier donning and eliminates additional lubricants
	The fabricless design is easy to clean and promotes hygiene
Inner Topcoat	Reduces tack and resists abrasion
Symmetrical Profile	Easy to don, non-specific liner orientation
	Extends the life of the liner
Embedded Fabric Mesh	Stabilizes soft tissue
	Protects the liner from rips, tears and abrasion
Durable Silicone	Platinum-cured silicone resists tears and rips
	Soft tissue compression and control
Silicone VMP	User and clinician directed management of daily volume fluctuation

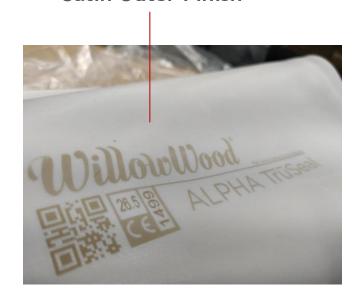






#### Exterior & Interior

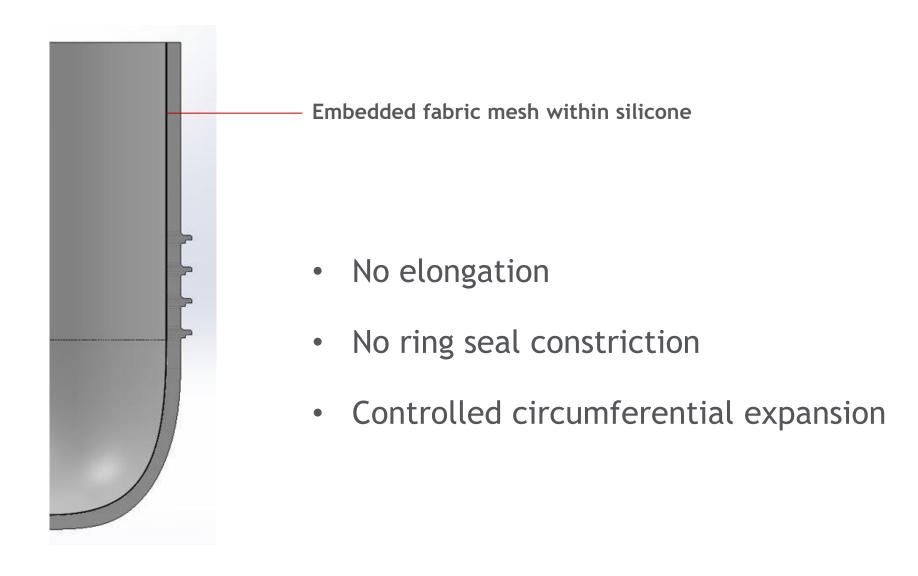
#### Satin Outer Finish



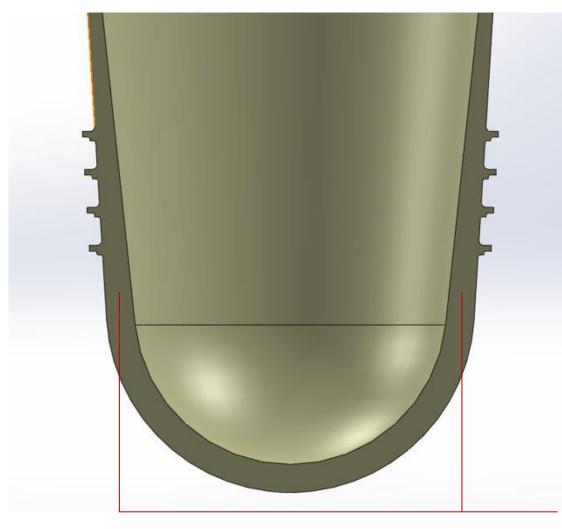


- Easy donning
- Low friction
- Lubricant-free

#### Embedded Fabric



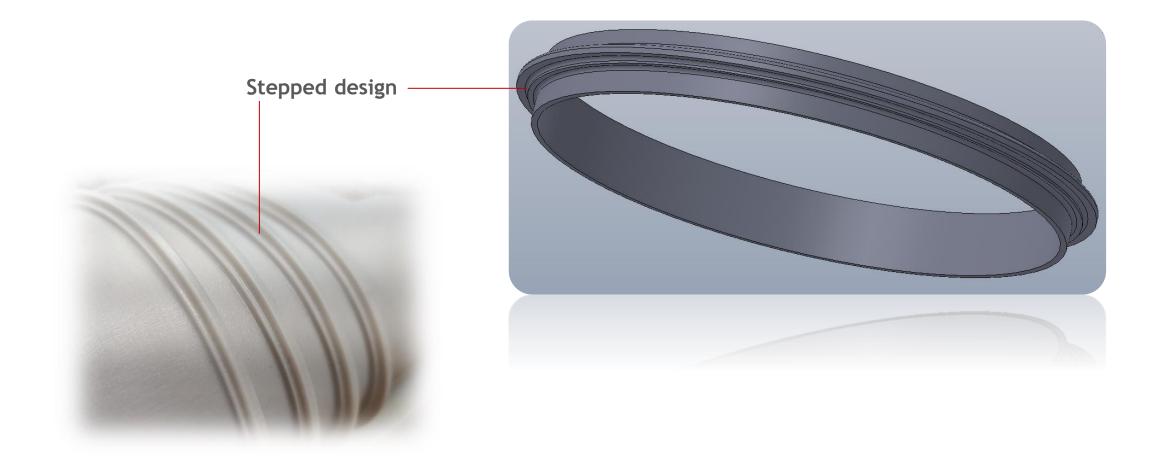
#### Silicone Profile



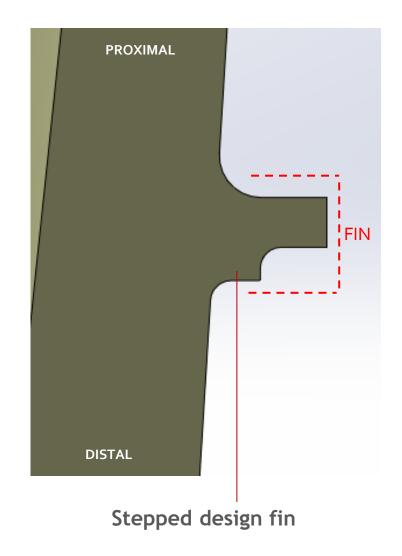
- Universal orientation
- Minimum bulk
- Maximum cushioning

Tapered, symmetrical profile

#### Fin Profile



#### Fin Profile



PROXIMAL -2 points of seal contact DISTAL

Fin flips up proximally

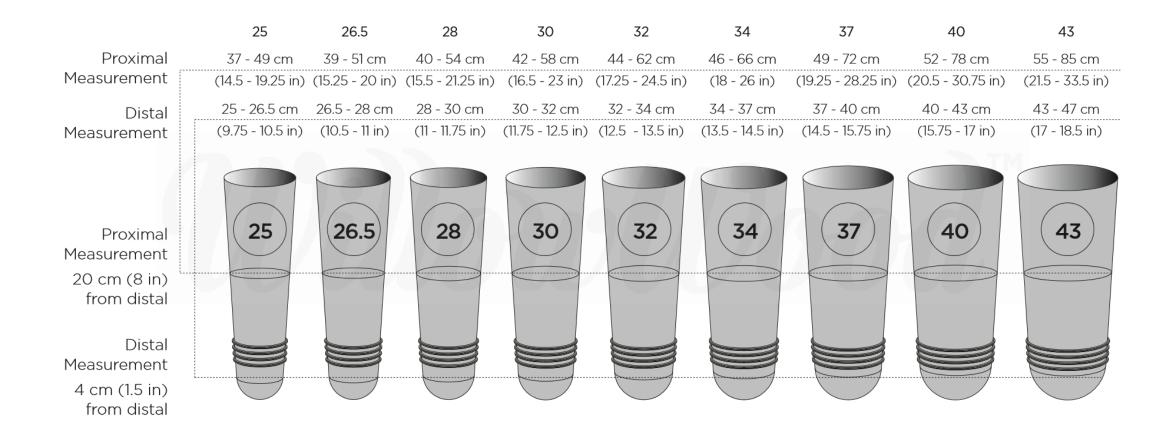


# Alpha TruSeal Specifications

Category	Specification
User Activity Level:	All functional levels
User Types:	Transfemoral (TF) users
Interface Material:	Medical grade, platinum-cured silicone
Suspension Method:	Four integrated stepped fins
Liner Color:	Taupe
Sizes:	9 sizes, ranging from 25 cm to 43 cm
Liner Profile:	AK Symmetrical. The liner is 9 mm distal and tapers to 2.5 mm proximal
Warranty:	12 months from date of patient fitting
Trial Period:	30 days from date of patient fitting
Recommended L-Codes:	L5679
Casting Liners:	Not Available



## Sizing Chart



## Ordering Guidelines

- 1. Collect user measurements at 4 cm (1.5") & 20 cm (8")
- 2. Refer to sizing chart

S494-11XX

30 =
32 =
34 =

25 = 25 cm 26 = 26.5 cm 28 = 28 cm 30 = 30 cm 32 = 32 cm 34 = 34 cm 37 = 37 cm

40 = 40 cm

43 = 43 cm

# Alpha VMP Specifications

Category	Specification
Size:	9" x 4.5" (23 cm x 11.5 cm)
Thickness:	4.5 mm & 7.5 mm
Beveled Edge (Width):	3/4" (2 cm)
Material:	Medical grade, platinum-cured silicone
Warranty:	30 days from date of patient fitting
Trial Period:	No trial period
Recommended L-Code(s):	Not applicable





#### WARRANTY

Important Note: For the safety of you and your patients, WillowWood will not resell any returned Alpha Liners that may possibly have been worn.

#### **Material Safety Data Sheet**

A Material Safety Data Sheet (MSDS) for the Alpha TruSeal Liner is available from WillowWood upon request.

#### Warranty

WillowWood warrants each Alpha Liner from the date of fitting for a period of 12 months against defects in material and workmanship. There is no warranty, expressed or implied, for damage caused by abuse, mishandling or accident. The warranty is void if the fitting and routine care instructions are not followed. For your protection and ours, please thoroughly clean all used products prior to return.

#### Warranty Disclaimer

WillowWood warrants that each product manufactured will, at the time of delivery, be of workmanlike quality and substantially free of defects. WillowWood makes no other warranty, implied or expressed, and makes no warranty of merchantability or fitness for a particular purpose. This warranty shall terminate immediately upon an action to combine our products with other materials or in any manner change the nature of our products. The remedy is repair or replacement or credit for the failed products at the discretion of WillowWood. If a replacement product is provided to a customer, the warranty period will be the number of days remaining on the original warranty. WillowWood's liability shall not exceed the purchase price of the product. WillowWood is not responsible for any indirect, incidental or consequential damage.

#### Retention of Rights

WillowWood retains all intellectual property rights reflected in its physical products, regardless of the transfer of the physical products to another party or parties.

#### **Trial Period**

The trial period for an Alpha Liner is 30 days from the date of the seller's invoice. The policy for Alpha Liners returned during the trial period is as follows:

- Credit will be offered for patient rejection, defined as "product not appropriate for patient"
- For all other circumstances, exchange for a different Alpha Liner will be offered

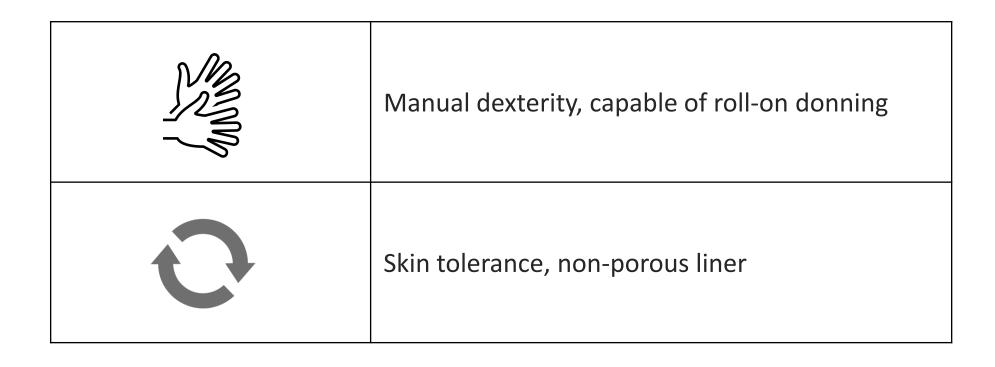
- 12 month Warranty
- 30 day Trial Period



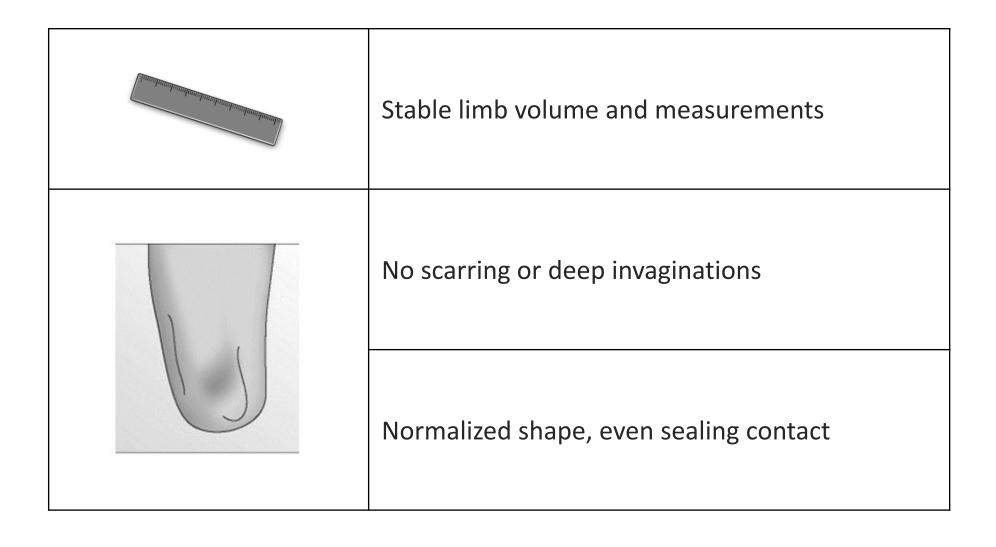
## **User Criteria**

	Above knee amputee only
↑ ≥ 160 mm (6.25")	Minimum 160 mm (6.25") limb length
CIRCUMFERENCE	Min. 250 mm  Max. 850 mm  Size intervals (25, 26.5, 28, 30, 32, 34, 37, 40, 43 cm)

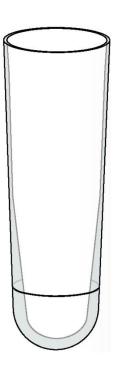
#### **User Criteria**



## **User Criteria**



#### Contraindications





• Not recommended for retrofitting with other liner models or profiles

# Donning

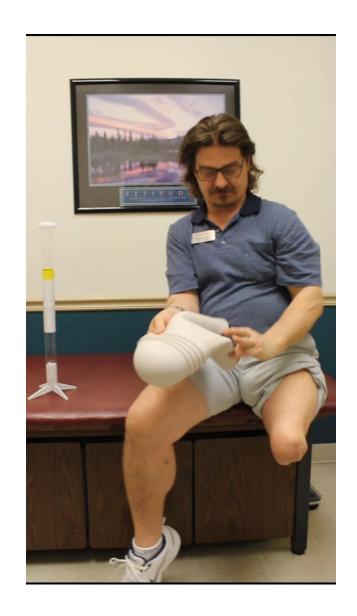


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# Fitting



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# CORRECT FIT

Assess ring seal under weight bearing

Reposition socket to disrupt seal

Verify distal contact

Avoid tissue elongation





# INCORRECT FIT

Uneven contact

Some rings remain upright

Partial seal contact

No seal contact



# INCORRECT FIT

Proximal tissue uncontained

Tissue impingement

Tissue elongation

Partial or no distal contact

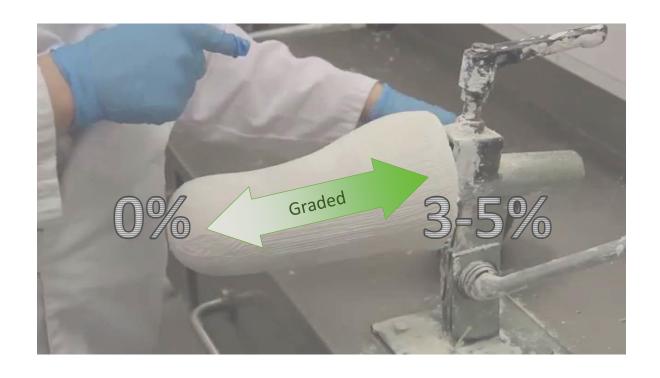


# Modification



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## **Graded Volume Reduction**



# Liner Care



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# **Daily Cleaning**







- Mild body soap
- Soft cloth
- Wipe inside surface without rings

- Rinse with water
- Remove excess soap

- Dry liner
- Lint-free cloth

# Weekly Disinfection







- Iso/ethylpropyl alcohol
- Soft cloth
- Wipe inside surface without rings

- Rinse with water
- Remove excess alcohol

- Dry liner
- Lint-free cloth

#### Liner Care



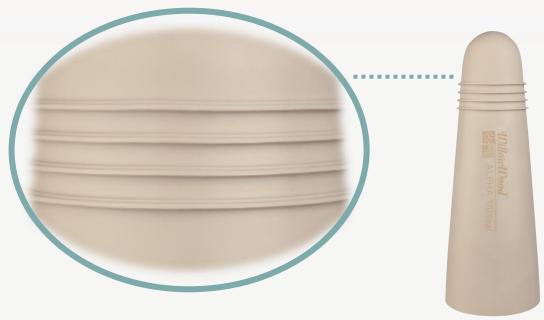
- Place liner on drying stand
- Rings facing out

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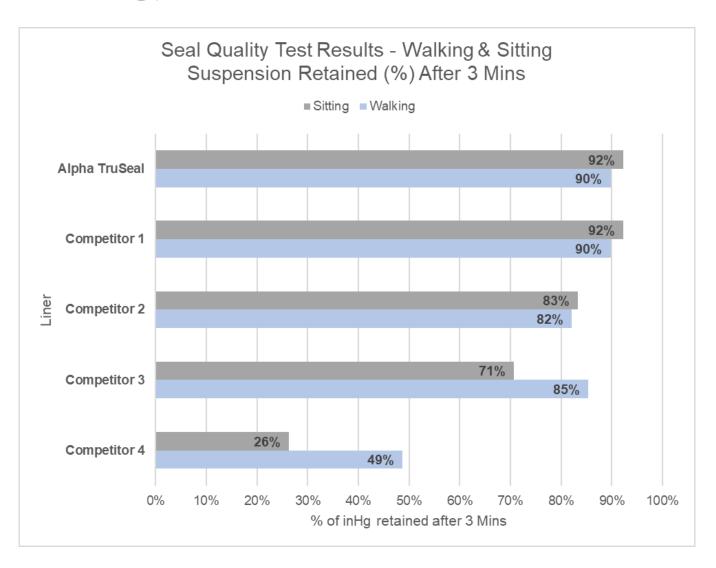
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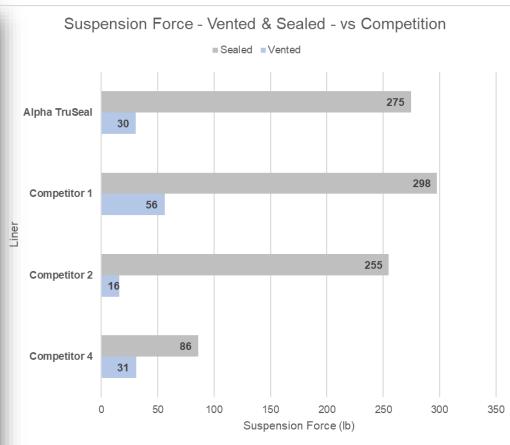
## Tru Suction (Seal Quality Testing)

- Started with new liners and definitive sockets for each test
- Used LimbLogic, set to 20 inHg, to generate high levels of vacuum suspension to accelerate the differences that would occur at lower suction ranges
- Subjects completed continuous walking/sitting periods for 3 minutes
- Measured the remaining pressure
- Alpha TruSeal is among the best performers - least amount of suction leak



## Tru Suction (Socket Pull Testing)





- Alpha TruSeal & Competitors were fit over a limb model and inserted into a check socket
- Placed on a tension-compression test machine
- Measured force required to pull limb model from socket
- Performed in vented and sealed configurations
- Alpha TruSeal provided one of the highest suspension forces when sealed
- Alpha TruSeal exhibited one of the lowest doffing forces when vented

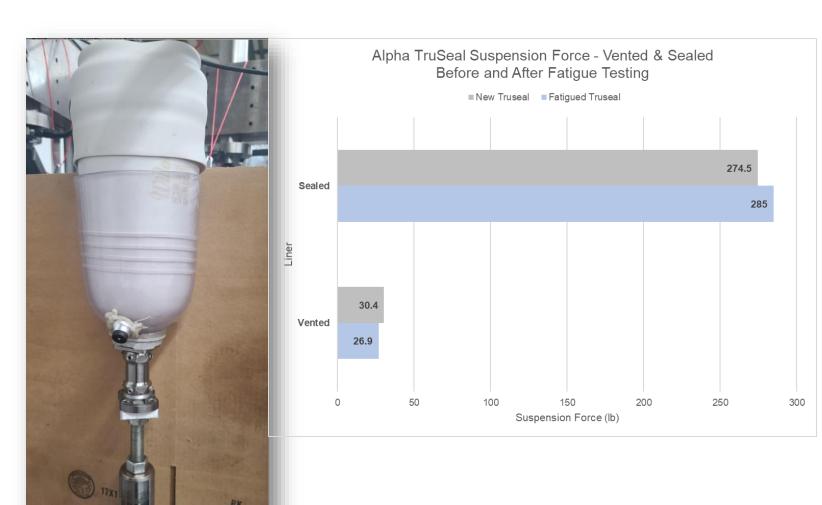
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- Allowing easier, lubricant-free donning
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# Tru Durability (Socket Pull Post Fatigue)



- Following the initial pull test, the Alpha TruSeal liner was stressed in a cyclic mechanical loading test for 3 million cycles
- After the 3 million cycles concluded, the initial pull test was repeated
- Results found no loss of suspension force, demonstrating the durability of the liner

# Trū Volume Control

TruSeal liner accommodates a wide range of daily volume fluctuation. Adaptation to fluctuation ensures uninterrupted suction suspension.

This is accomplished by:

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# WillowWood ALPHA TrūSeal™

